

## **ABSTRACT**

### ***INTRODUCTION***

Abruptio placenta is the most common pathological cause of late pregnancy bleeding. In humans, it refers to the abnormal separation after 20 weeks of gestation and prior to birth. It occurs on average of 0.5% or 1 in 200 deliveries.

### ***OBJECTIVES***

To analyse the incidence of abruptio placenta in a tertiary health care centre. To study the clinical and histopathological features of placenta in abruptio placenta and compare with normal placenta. To study the morphological difference of abruptio placenta of primigravida with that of multigravida patients.

### ***MATERIALS AND METHODS***

A prospective case-control study included 50 singleton pregnancy with clinical diagnosis of placental abruption (cases) compared to 50 consecutive normal pregnancies (control), attending Coimbatore Medical College Hospital over a period of one and half years from January 2017 to June 2018. Clinical features, gross examination, histopathological analysis was compared between cases and controls, primi and multi gravida.

### ***RESULTS***

The incidence of Abruptio placentae in Coimbatore medical college hospital is 35-40 cases per year. Multiparity, paternal smoking, pregnancy induced hypertension, were the significant risk factors for placental abruption. Median age of occurrence was 27 years. Intervillous haemorrhage, intravillous haemorrhage and increased syncytiotrophoblastic knotting were the significant acute histological features. Decidual vasculopathy was the significant chronic histological feature of placental abruption. Chorioamnionitis with haemorrhage was the significant histopathological feature of placental abruption in primi

gravida. Placental infarction, villitis, villous maldevelopment, and maternal floor decidual necrosis were the significant histopathological feature of placental abruption in Multi gravida.

### ***CONCLUSION***

Pathology behind the placental abruption in primi gravida is different from multigravida. Paternal smoking was a significant risk factor for chronic inflammatory processes in placental abruption. Further studies are recommended in primi gravida regarding histopathological, Serological and genetic aspects, to predict the placental abruption in subsequent pregnancies.

### ***KEY WORDS***

DIC- Disseminated Intravascular Coagulation, PAPP-A- Pregnancy Associated Plasma Protein - A, IUGR- Intra Uterine Growth Restriction